

AVERY

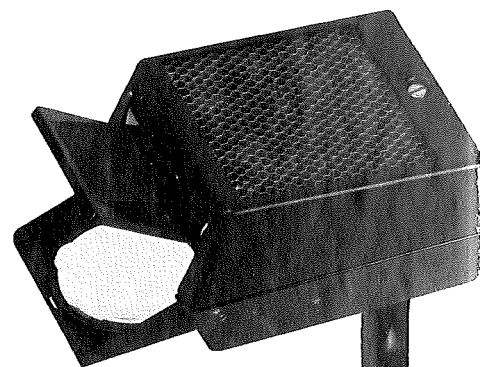
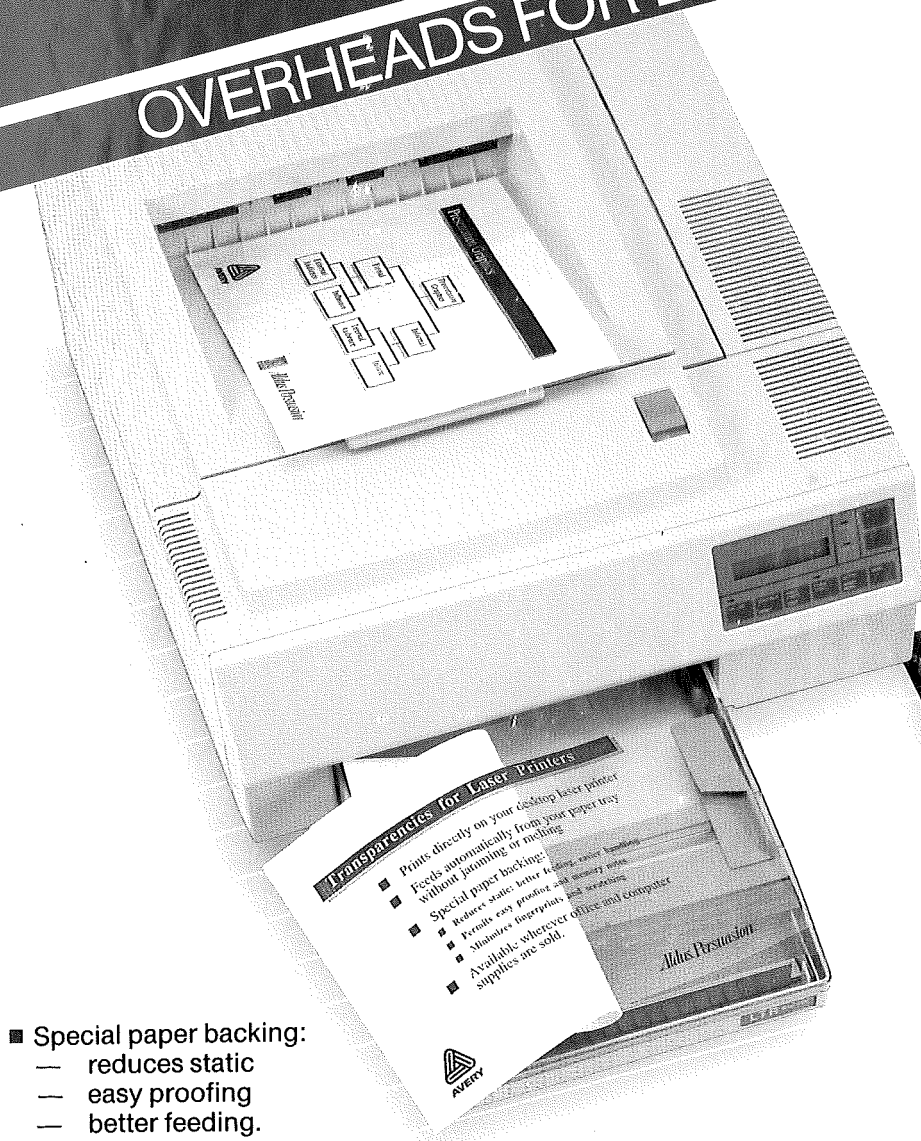
5182

50 Transparencies
8½" x 11"

Laser Transparencies

OVERHEADS FOR DESKTOP LASER PRINTERS

Compatible with
HP, APPLE[®]
and other popular
Laser Printers



- Special paper backing:
 - reduces static
 - easy proofing
 - better feeding.



0 72782 05182 2



Avery Overhead Transparencies For Desktop Laser Printers

Avery Overhead Transparencies for Desktop Laser Printers make creating professional, high quality overheads for business presentations from your desktop laser printer and personal computer easier than ever before.

Avery Transparencies feed automatically from the paper tray of your HP, Apple or other popular laser printer. A specially coated and heat stabilized transparency film with convenient paper backing is designed to reliably feed through your laser printer without jamming or melting. Available in both a 50 sheet box (Product #5182) and convenient 20 sheet File Pack (Product #5282).

Instructions for Usage

Handling the Transparency Film

Handle only along the edges to avoid finger prints.

Loading Transparency Film in Printer

Load the transparency sheets just as you would paper in your printer's cassette tray. Fan the sheets and place them in the paper cassette tray, making sure the leading edge of the transparency sheet is the bonded 8½" edge (where the film and the backing sheet are attached). Depending on the model of laser printer you are using, the "film side" will be stacked in the paper tray either face down (e.g. HP LaserJet, Apple LaserWriter) or face up (e.g. HP LaserJet II, Apple LaserWriter II).

Printing

Print on the transparency film as you would normally print on a sheet of paper, using your business presentation or graphics software.

Removing the Transparency Film from the Paper Backing

Hold the paper backing near the adhesive strip (bonded 8½" side) and firmly peel the transparency film away from the paper backing.

Filing and Protecting Your Transparency

After finishing your presentation, you may reapply the paper backing to the film before filing. Always store in a cool, dry place.

If you have any questions regarding using Avery Overhead Transparencies for Desktop Laser Printers, call Avery Technical Support at (818) 792-8489.

— *WAIS Inc.* —

Wide Area Information Servers

Integrated access to personal - corporate - published information

**Brewster Kahle
President
WAIS Inc.**

Wide Area Information Servers

What I really want...

- **My personal information to be accessible**
- **Published information should find me**
- **Usable anywhere**
- **Others can use what I have learned
(if I want them to)**

What is it?

Electronic Publishing

(Or publishing over wires)

New Communications Technology Problems

	BOOKS	Telegraph Telephone	Electronic Publishing
Experts only	<i>Monks</i>	<i>Operators</i>	<i>Professional searchers</i>
Distribution is hard and expensive	<i>Vellum is calf skin</i>	<i>Telephones on barb wire</i>	<i>\$1/minute over obscure modems</i>
Different interfaces	<i>1000's of languages in Europe alone</i>	<i>Switching was manual</i>	<i>//query (W5) inform?</i>
Material is intractable	<i>Scrolls and manu- scripts were about as random access as musical scores</i>	<i>No white pages</i>	<i>600 databases on Dialog ~1 Terabyte 140Gbyte at DJ 80GB card catalog at RLG</i>
Business model needed	<i>Centralized printing</i>	<i>Pay per minute</i>	<i>Not understood</i>

Navigation Techniques: Paper

- **Alphabetical Listings (dictionary, Encyclopedia)**
- **Indices (back of the book and Readers Guide)**
- **Table of Contents (outlining)**
- **Citation index**
- **"Tree of Knowledge"**
- **Have you read any good books lately?**

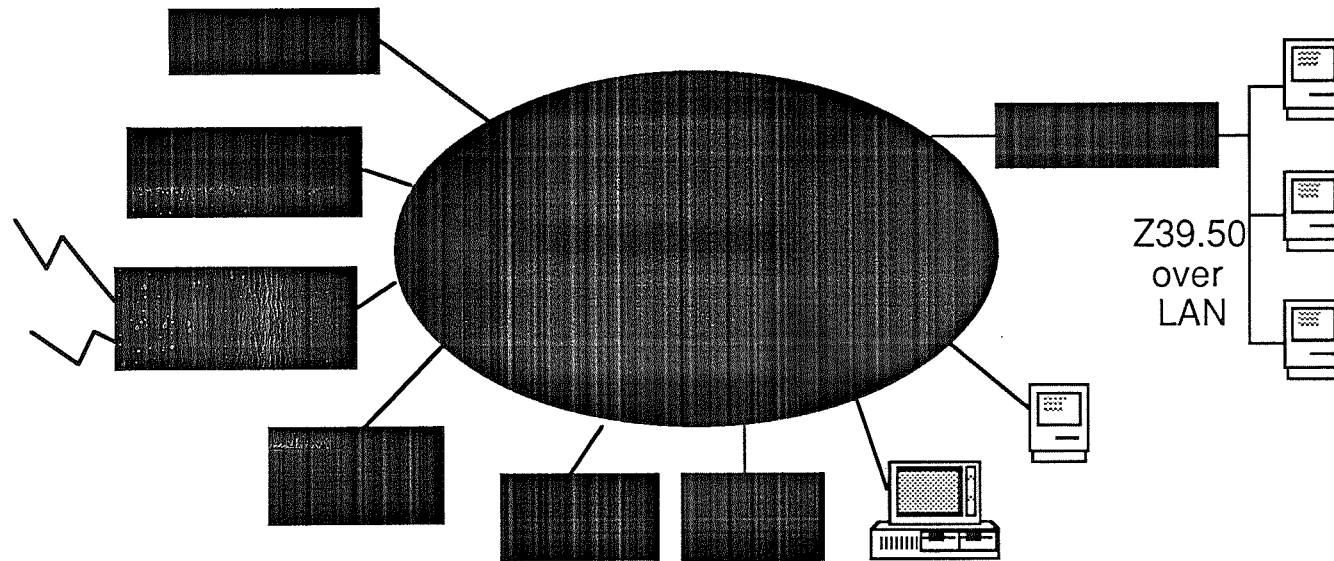
Navigation Techniques: Computers

- Hierarchical File Systems
- Unix "find" and "grep", Mac "find file"
- Gopher, Magellan, ON Location
- Boolean query systems (...within 5 words of...)
- Static Hypertext links (see also pointers)

Navigation Techniques: WAIS

- English language questions and relevance feedback
 - Question-answer dialog
 - Similar to Newspapers: "More on page 5"
 - Dynamic Hypertext Links
- 2 level search:
 - Directory of servers (server like any other)
 - Servers themselves

Wide Area Information Server Architecture



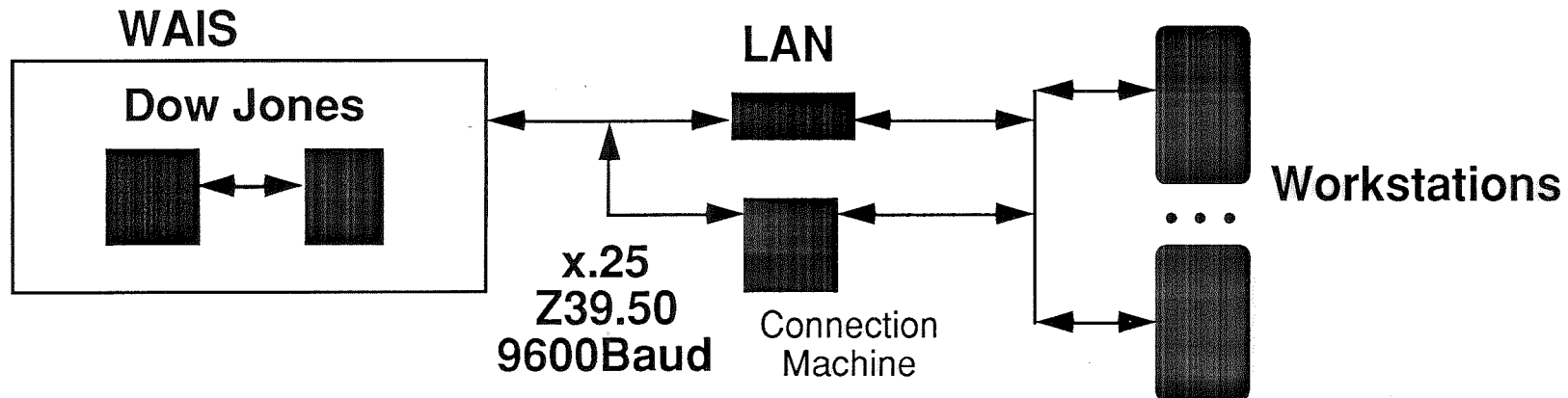
Users Needs:

- Selecting Servers
- Answering Questions
- Organizing Responses

Architecture Issues:

- Scalability
- Security
- Business model for servers
- Reliable Access

Demonstration System Structure



Operations:
Archiving
Queries
Retrieval
IR Type:
Broadcast
Query by Example
Databases:
Wall St Journal
Barron's
400 Business Mags

CM:
Operations:
Queries
IR Type:
enhanced relevance
feedback
Databases:
DowVision and memo's,
mail, word processor files

Mac:
Operations:
Human Int
Retrieval
Queries
"Caching" Docs
User Profiles
IR Type:
Query by example
Databases:
Personal Text
Cached data

WAIS Clients

- **Busy 24 hours a day finding information**
- **Ponder all indications of the preferences of its user**
- **Gossip with other clients about their discoveries**
- **Scours the world (within a budget) to find new sources**
- **Current implementations on PC, Macintosh, X Windows, NeXT, dumb terminal (dial-up)**

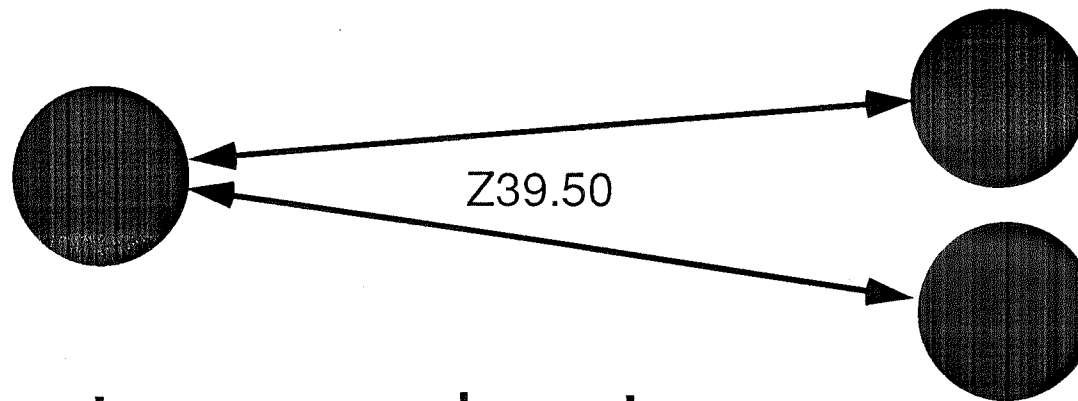
WAIS Protocol

- Based on NISO Z39.50 international standard
- Flexible — separates clients from servers
- Search: (*words, doc_ids, databases*)
returns list of: (*headline, score, doc_id, types*)
- Retrieval: (*doc_id, type, start, end*)
returns: *data of specified type*
- Doc_id: An ISBN for the Electronic Age
- Server Description Structure for the Directory of Servers

How Standard Protocol can Provides Security

- **Users do not login to server, but search only through application layer protocol (Z39.50).**
- **Server controls access to data.**
- **Network layers below application, or application layer handles authentication, encryption, billing.**

The WAIS Protocol *is* WAIS



- Supports any search syntax
- Supports sophisticated clients — puts intelligence in the user's hands
- Clients can run on any platform
- Multiple servers in a single search
- Retrieve any kind of data: text, graphics, video,...

Connection Machine Server

- 1-100GBytes (and getting bigger)
- Supports thousands of users
- Automatic Indexing
- Uses words and phrases in question to find appropriate documents with relevance feedback, weighted term
- Supports Boolean Queries
- Cost effective hardware alternative to mainframes

Unix Based Server

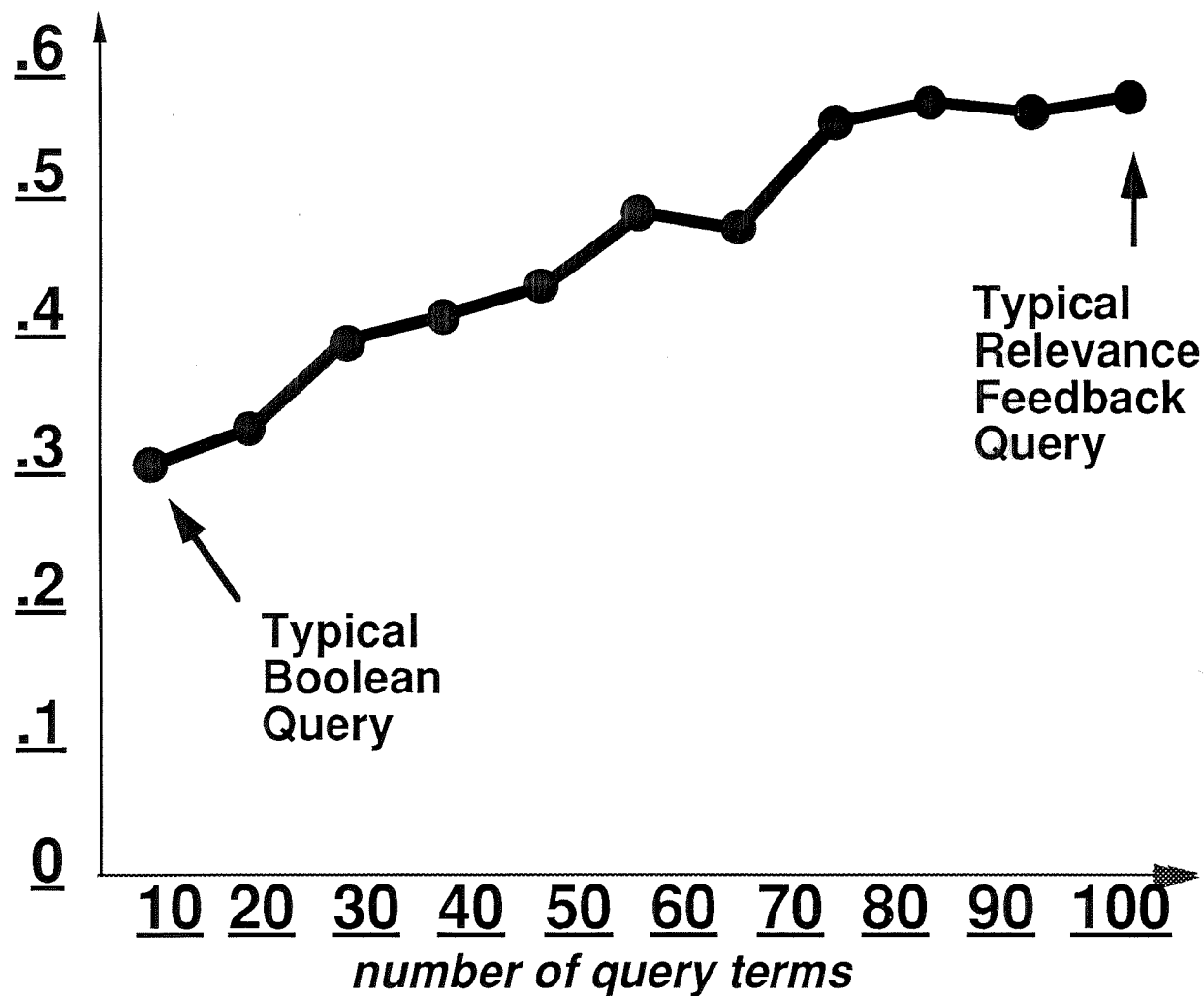
- **1MB-10GBytes**
- **Supports hundreds of users**
- **Multimedia indexing: word processor files etc.**
- **Supports Natural language and Boolean Queries**
- **Easy to install**

WAIS Inc.

Results Improve with Query Size

Precision x recall
@ 25% recall

Average
performance
over 13
reference sets



Wide Area Information Servers

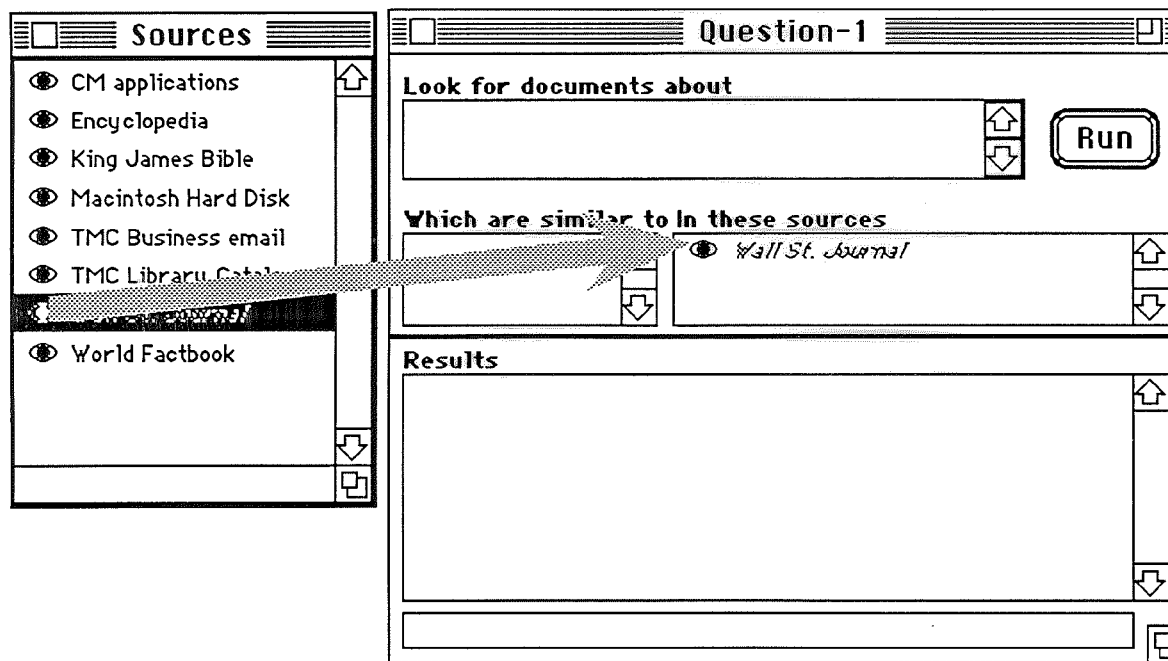


WAISStation: Active Database Sources, Saved Questions

Sources	
<input type="checkbox"/>	
<input checked="" type="checkbox"/>	CM applications
<input checked="" type="checkbox"/>	Encyclopedia
<input checked="" type="checkbox"/>	King James Bible
<input checked="" type="checkbox"/>	Macintosh Hard Disk
<input checked="" type="checkbox"/>	TMC Business email
<input checked="" type="checkbox"/>	TMC Library Catalog
<input checked="" type="checkbox"/>	<i>Wall St. Journal</i>
<input checked="" type="checkbox"/>	World Factbook

Questions	
?	CM Apps Question
?	Library question
?	Encyclopedia Q
?	Patent Q
?	TMC Bus. Email Q
?	TMC Fun Q
?	Montvale Q
?	World Factbook Q
?	poetry q
?	Bible Q

Select Data Source



Run Initial Query

Question-1

Look for documents about

recent developments in personal computers

Run

Which are similar to in these sources

Wall St. Journal

Results

*** Compaq Computer Directors Approve 2-for-1 Stock Split

*** International: Bull Agrees to Pay Zenith \$15 Million to End

*** AT&T Set to Announce Memorex Computer Accord

*** Technology Brief -- International Business Machines: Price

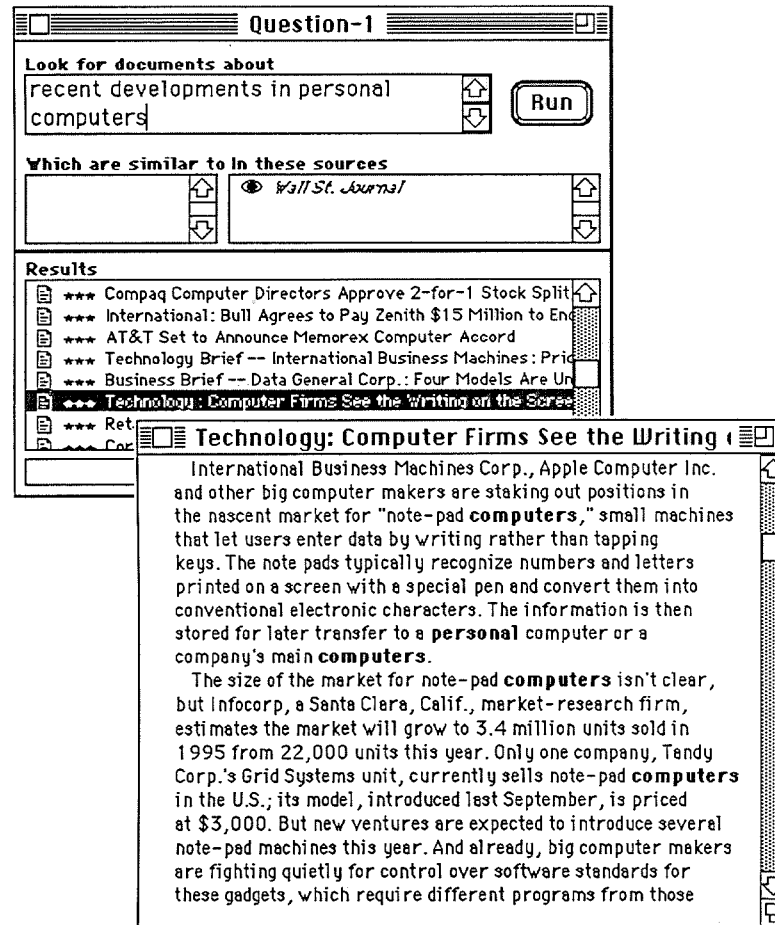
*** Business Brief -- Data General Corp.: Four Models Are Un

*** Technology: Computer Firms See the Writing on the Wall

*** Retailing: Businessland Enters Japan, Aided by 4 Big Loca

*** Corrections & Amplifications

Click a Headline to Display a Document



Relevance feedback: “Find me more like this one”

The screenshot shows a window titled "Question-1" with the following sections:

- Look for documents about**
recent developments in personal computers [up/down arrows] [Run button]
- Which are similar to in these sources**
Technology: Cor [up/down arrows] Wall St. Journal [up/down arrows]
- Results**
 - *** Compaq Computer Directors Approve 2-for-1 Stock Split [up/down arrows]
 - *** International: Bull Agrees to Pay Zenith \$15 Million to End [up/down arrows]
 - *** AT&T Set to Announce Memorex Computer Accord [up/down arrows]
 - *** Technology Brief -- International Business Machines: Price [up/down arrows]
 - *** Business Brief -- Data General Corp.: Four Models Are Un [up/down arrows]
 - *** Technology: Computer Firms See the Writing on the Screen [up/down arrows]
 - *** Retailing: Businessland Enters Japan, Aided by 4 Big Loca [up/down arrows]
 - *** Corrections & Amplifications [up/down arrows]

Relevance Feedback of Paragraph

Technology: Computer Firms See the Writing

Computer makers are scrambling to cash in on people who find the pen mightier than the keyboard.

International Business Machines Corp., Apple Computer Inc. and other big computer makers are staking out positions in the nascent market for "note-pad **computers**," small machines that let users enter data by writing rather than tapping keys. The note pads typically recognize numbers and letters printed on a screen with a special pen and convert them into computer

Question-1

Look for documents about

The recent developments in personal but computers

estimated 1995

Run

which are similar to in these sources

Technology: Cor Wall St. Journal

Results

- *** Compaq Computer Directors Approve 2-for-1 Stock Split
- *** International: Bull Agrees to Pay Zenith \$15 Million to End
- *** AT&T Set to Announce Memorex Computer Accord
- *** Technology Brief -- International Business Machines: Price
- *** Business Brief -- Data General Corp.: Four Models Are Un
- *** Technology: Computer Firms See the Writing on the Screen
- *** Retailing: Businessland Enters Japan, Aided by 4 Big Local
- *** Corrections & Amplifications

WAIS Inc. “Chaining” of Questions to Follow a Tangent

Question-1

Look for documents about
recent developments in personal computers

Run

Which are similar to in these sources
Technology: Computers Wall St. Journal

Results

- *** International: Bull Agrees to Pay Zenith \$15 Million to End
- *** AT&T Set to Announce Memorex Computer Accord
- *** Technology Brief -- International Business Machines: Price
- *** Business Brief -- Data General Corp.: Four Models Are Un
- *** Technology: Computer Firms See the Writing on the Scree
- *** **Retailing: Businessland Enters Japan, Aided by 4 Big Loca**
- *** Co
- La

Question-2

Look for documents about

Run

Which are similar to in these sources
Retailing: Business Wall St. Journal

Results

- *** Retailing: Businessland Enters Japan, Aided by 4 Big Loca
- *** What's News -- Business and Finance
- *** Technology: Computer Makers Agree on a Standard For Ne
- *** Inside Track: Businessland Directors Take a Loss And Tra
- *** Technology & Health: Businessland To Report Loss For 3r
- *** Technology: U.S. Computer Maker Takes on NEC on Its Ow
- *** Technology: Computer Firms See the Writing on the Scree
- *** What's News: Chase Manhattan Lines Merger Will Leave Four

Wide Area Information Servers

Internet Freeware Release

- **Example User interfaces for free (no support)**
Macintosh, Gnu Emacs, Xwindows
- **Example unix server software to create servers**
- **Directory of Servers on the internet at least through '92**
- **300 Servers now: Weather Maps, patents, journal abstracts, email archives, usenet recipies,...**
- **Free Software via FTP from Think.com:/wais/***

Mailing list: `wais-discussion-request@think.com`

WAIS Uses

- **Over 15,000 users on the Internet**
- **Users in 28 Countries: Mexico, Singapore, Finland, Australia, etc**
- **300 Databases served from 12 Countries: Norway, Canada, UK, etc. Average 3 new databases registered per week.**

WAIS Uses: Campus Wide Info Servers

- Class catalog and schedule
- Campus events: movies, sports
- Job listings
- Library catalog
- Phone book
- Professor research interests
- Past theses

[	sol.acs.unt.edu]	UNTComputerDoc
[	xantos.uio.no]	UiO_Publications
[	next2.oit.unc.edu]	ibm.pc.FAQ

WAIS Uses: Libraries

- Easy to use card catalog
- Remote use from home or office
- Pictures, full text, scanned documents

<code>[pegun.law.columbia.e]</code>	<code>columbia-law-library-catalog</code>
<code>[pegun.law.columbia.e]</code>	<code>columbia-spanish-law-catalog</code>
<code>[quake.think.com]</code>	<code>tmc-library</code>

WAIS Uses: Biology

- Journal Abstracts
- Sequence archives
- Images

Currently over 20 Biology databases in
Finland, Netherlands, and US

[	cmns.think.com]	Molecular-biology
[	bio.vu.nl]	biology-compounds
[	genbank.bio.net]	biology-journal-contents
[	wais.funet.fi]	bionic-ai-researchers
[	wais.funet.fi]	bionic-directory-of-servers
[	wais.funet.fi]	bionic-enzyme

WAIS Uses: Chemistry CORE Project

- All published chemistry (8 years all ACS)
- Scanned pictures, ascii text
- Optical jukebox mass storage
- Connection Machine / Newton search engines

**Project of Bellcore, ACS, Chem Abstracts,
OCLC, Cornell, and Thinking Machines**

[`cujo.curtin.edu.au`] `chem-eng-current-contents`

WAIS Uses: Business Executives

- Dow Jones information
- Corporate information
- Personal information

Project:
KPMG, Apple, Thinking Machines, Dow Jones

[	cmns.think.com]	wall-street-journal-sample
[	think.com]	Business-email

WAIS Uses: Medical Researchers/Doctors

- **Medical papers**
- **Storing and matching patient records**
- **Remote connections to specialized databases**

[`wais.funet.fi` `bionic-databases-limb`

WAIS Uses: Community Information

- **Dial-up users: no network required**
- **Directories of services or facilities**
- **Education and entertainment**

[	quake.think.com]	internet-resource-guide
[	sol.acs.unt.edu]	online-libraries
[	quake.think.com]	weather
[	lambada.oit.unc.edu]	nsf-bulletins

Conclusion

- Electronic Publishing can fill niches now.
- WAIS Inc is working with groups that want to publish their information internally or externally.
- WAIS Inc is working with those that want to profit by using other peoples servers.